

Durgin Sand & Gravel, Inc.
Cumberland County
Gray, Maine
A-833-71-B-A

Departmental
Findings of Fact and Order
Air Emission License
Amendment #1

After review of the air emission license amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Durgin Sand & Gravel, Inc. (DSG) located in Gray, Maine was issued Air Emission License A-833-71-A-N on October 29, 2002, permitting the operation of emission sources associated with their crushed stone and gravel facility.
2. DSG has requested an amendment to their license in order to add a secondary cone crusher and an associated diesel engine.

B. New Emission Equipment

Rock Crushers:

<u>Designation</u>	<u>Powered</u>	<u>Process Rate</u> <u>(tons/hour)</u>	<u>Control Device</u>	<u>Date of</u> <u>Manufacture</u>
RC#2	electrical	124	Spray Nozzles	1981

Diesel Units:

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Power Output</u>	<u>Fuel Type, % sulfur</u>
Diesel #2	2.66MMBtu/hr	19.42 gal/hr	380 Hp	diesel fuel, 0.05%

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the “Significant Emission Levels” as defined in the Department’s regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions.

This modification will not increase the licensed allowed emissions from this source. Therefore, this modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Rock Crusher

RC#2 is a portable unit which was manufactured in 1981 with a rated capacity of 124 tons per hour. RC#2 is therefore not subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

The regulated pollutant from RC#2 is particulate emissions. To meet the requirements of BACT for control of particulate matter (PM) emissions from the RC#2, DSG shall maintain water sprays on the rock crusher and operate as needed to control visible emissions. Visible emissions from RC#2 shall be limited to no greater than 10% opacity on a six (6) minute block average basis.

C. Diesel #2

Diesel #2 is used primarily to provide electrical power to the rock crushers.

A summary of the BACT analysis for Diesel #2:

1. The total fuel use for the facility (Diesels #1 and #2) shall not exceed 10,000 gal/year of diesel fuel, based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.05% by weight.
2. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO₂ determined a more stringent limit of 0.05% was appropriate and shall be used.
3. The PM and PM₁₀ limits are derived from Chapter 103.
4. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
5. Visible emissions from Diesel #2 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

D. Facility Emissions

DSG shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emissions for the Facility
(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Diesels	0.1	0.1	0.1	3.0	0.7	0.2
Total TPY	0.1	0.1	0.1	3.0	0.7	0.2

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-833-71-B-A subject to the conditions found in Air Emission A-833-71-A-N and in the following conditions:

The following shall replace Condition (16) of Air Emission License A-833-71-A-N:

(16) **Rock Crushers**

- A. DSG shall maintain spray nozzles for particulate control on RC#1 and RC#2 and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six (6) minute block average basis. [MEDEP Chapters 115 (BPT) and 101]
- B. DSG shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
- C. DSG shall maintain a log detailing and quantifying the hours of operation on a daily basis for RC#1 and RC#2. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
- D. RC#1 and RC#2 shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation. [MEDEP Chapter 115, BPT]

The following shall replace Condition (17) of Air Emission License A-833-71-A-N:

(17) **Diesels**

- A. Total fuel use for Diesel #1 and Diesel #2 shall not exceed 10,000 gal/yr of diesel fuel with a maximum sulfur content not to exceed 0.05% by weight. Compliance shall be based on fuel receipts from the supplier and records of the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis. [MEDEP Chapter 115, BPT]
- B. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Diesel #1	0.13	0.13	0.08	7.41	1.60	0.56
Diesel #2	0.32	0.32	0.14	11.73	2.53	0.93

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- C. Visible emissions from Diesel #1 and Diesel #2 shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.
[MEDEP Chapter 101]

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-833-71-A-N.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/30/04

Date of application acceptance: 3/30/04

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.